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APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
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08/841,027 04/29/97 GAGGAR

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15M1/0811

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GE PLASTICS  
ONE PLASTICS AVENUE  
PITTSFIELD MA 01201

EXAMINER

HOKE, V

ART UNIT

PAPER NUMBER

1511

#11

DATE MAILED:

08/11/97

This is a communication from the examiner in charge of your application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

OFFICE ACTION SUMMARY

- ☐ Responsive to communication(s) filed on \_\_\_\_\_
- ☐ This action is FINAL.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

- ☒ Claim(s) 2 to 7, 9 & 10 is/are pending in the application.
- Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 2 to 7, 9 & 10 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d)

All ☐ Some\* ☐ None ☐ of the CERTIFIED copies of the priority documents have been received

received in Application No. (Series Code/Serail Number) \_\_\_\_\_

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e)

Not to be used for filing

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of International Patent Application, PTO-948

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15.

The preliminary amendments dated April 29, 1997 have been entered.

16.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 1 to 7, 9 and 10 are rejected under 35 U.S.C. § 103 as being unpatentable over Gosens et al., Yang et al. and Buysch et al.

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Each of these references teaches the use of a Teflon/aromatic phosphate flame retardant system for polycarbonate (PC) resins which contains either an ABS resin or an ABS/SAN resin blend for the PC resin's improved impact resistance. Applicants contingency of either at 6 to 12% by weight (claim 9) or 4 to 12% by weight (claim 10) of the total composition be comprised of rubber for acceptable impact strength ratings is within the prior art's purview. Hence in Table C of Gosens, the ABS-3 resin (column 6, line 14) contains 50% by weight of rubber. Therefore the composition of example VII contains 6 parts (  $12 \times \frac{1}{2}$  ) rubber in the PC/grafted rubber/SAN/phosphate (10%)/Teflon (.2%) blend. Reference's SAN content at 15 weight % is slightly higher than applicants 10 weight % upper limitation, the grafted rubber resin (ABS) at 15 weight % corresponding to applicants upper limitation. Since the quantity of SAN would be contingent upon the degree

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of thermal processing ease desired and the degree of increased burning vulnerability that can be tolerated since SAN resins are more flammable than PC resins, the non grafted resin's content is a parameter easily determined in order to achieve both superiority in both aspects.

Since the ABS resin's presence is primarily sought in the prior art for impact strength purposes, it stands to reason that the higher its rubber content, the greater the impact strength obtainable.

With regard to Yang et al. see example 2 in Table 1 wherein the grafted resin "(b)" at 10 parts comprises 5 parts rubber (column 5, line 53) per 100 parts of PC + ABS + Styrene thermoplastic. Furthermore since the grafted resin may comprise 2 to 40% by weight of the blend (column 3, first paragraph) and the rubber  $\frac{1}{2}$  of said grafted resin (column 5, last paragraph), the rubber content can be 1 - 20% of the total composition.

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Applicants 6 - 12% or 4 to 12% range is right within the middle of said range: 1-5-10-15-20. Accordingly applicants is merely optimizing a range already within the prior art's purview for its expected benefit of increased impact strength resistance.

Further evidence of obviousness is found in Buysch et al.'s disclosure at column 12. At lines 11-14, the respective contents of PC resin (A), grafted rubber (B), SAN Thermoplastic resin (C), phosphate (E) and Teflon (F), of about 58.9%, 10.5 (vis-a-vis rubber content), 17%, 10.2% and 3.5%, reveal close correspondence to applicants proportions of 60 to 90% PC, 4 (or 6) to 12% rubber, 1-10% SAN, 3 to 15% phosphate and 0.05 to 2.0% Teflon.

Based on the above analysis, not only are the ingredients content ranges shown to be within the prior art's purview, the utilization of ABS in such an amount and containing as the diene content an amount which is

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sufficient to provide its expected benefit, that of  
improving impact resistance, is prima facie obvious.

The quantity of rubber stipulated here, based on the  
total weight of the composition, is clearly obvious  
where an ABS resin is used with a phosphate flame  
retardant in PC resins.

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PRIMARY EXAMINER  
GROUP 1500

**V. P. Hoke:cb**  
Primary Examiner

Tuesday, July 29, 1997  
Wednesday, August 6, 1997